

REMARKS/ARGUMENTS

The Office Action of June 3, 2005 has been carefully reviewed and this response addresses the Examiner's concerns stated in the Office Action. All objections and rejections are respectfully traversed.

I. STATUS OF THE CLAIMS

Claims 1-57 are still pending in the application.

Claims 1-19, 21-39, and 41-57 are rejected under 35 U.S.C. § 102(e) as being anticipated by Goldszmidt et al, United States Patent Number 6,195,680, issued on February 27, 2001 (Goldszmidt).

Claims 20 and 40, which depend on independent claims 1 and 27, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Goldszmidt in view of Wolf et al., United States Patent Number 6,374,297, issued April 16, 2002 (Wolf).

Claims 1 and 44 have been amended to further define the invention. Support for the amendments is annotated below.

II. REJECTIONS UNDER 35 USC § 102(e)

On pages 2-8, paragraphs 2-3, the Office Action states that claims 1-19, 21-39, and 41-57 are rejected under 35 U.S.C. § 102(e) as being anticipated by Goldszmidt.

Applicant respectfully points out that the cited reference, Goldszmidt, was published on February 21, 2001, within a year of the filing date of the present application, May 29, 2001. Applicant respectfully reserves the right to file a petition under 37 C.F.R. § 1.131 to swear behind Goldszmidt.

Applicant further respectfully points out that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (CAFC, 1987), M.P.E.P. § 2131. As provided by the remarks set forth below, clearly this is not the case with the present rejection of the claims. In summary, Goldszmidt does not anticipate Applicant's invention at least because of the following:

(1) While Goldszmidt relies on clients to determine whether or not they have lost connection to a server switch themselves to alternate servers, Applicant claims a central management system that receives notice of a detected gateway failure and recovers

management of a network element for which the failed gateway had management responsibility (claims 1, 27, and 44).

(2) Nowhere does Goldszmidt disclose or suggest translation of communication protocols (claims 2, 24, 29, 36, 47, and 54); and

(3) Nowhere does Goldszmidt disclose or suggest polling gateways (claims 6, 31, and 48).

Independent claims 1, 27, and 44

On page 2, in paragraph 3, with respect to independent claims 1 and 44, the Office Action states that Goldszmidt discloses a method of recovering management of one or more network elements, said method comprising: monitoring operation of a plurality of distributed gateways (servers 1.1, 1.2, 1.3, of FIG. 1a could be gateways, col. 4, lines 27-58), each of said gateways responsible for managing one or more network elements (client 1.8 of FIG. 1a could be multiple clients, col. 9, line 47 – col. 10 line 48) (FIGs. 1a, 5, Abstract, col. 5, lines 22-64). The Office Action states that Goldszmidt discloses detecting failure of one of said distributed gateways (detecting a failure in the stream or stream server 1.2 FIG. 1b) and responsive to said detecting step, recovering management of said one or more network elements for which said failed gateway had management responsibility by assigning management responsibility to at least one other of said plurality of distributed gateways (switching the client agent to an alternate streaming server, see FIG. 1b, col. 7, line 11 to col. 12, line 33). [Applicant assumes the Office Action meant col. 8, line 33.]

Applicant has amended claims 1 and 44 to further define the invention. Support for the amendments can be found in Applicant's specification, FIG. 6 and pages 25-27.

In the first cited passage (FIG. 1a and col. 4, lines 27-58), Goldszmidt states that there is a control server having sets of streaming servers. Goldszmidt states that the control server could be a gateway that accepts client requests and routes them to servers in sets.

In the second cited passage (FIG. 1a; col. 9 line 47 – col. 10, line 48), Goldszmidt states that the client sends a request to the control server, and the control server determines a set of primary streaming servers that the client can connect to, that when the client detects a failure, the client communicates a request to the control server to switch to an alternate server, that the control server selects a new server, and that the new server begins providing the client with real-time multimedia streams. Elsewhere, Goldszmidt states that the client

could further take the lead in selecting an alternate server by determining a delivery rate and comparing it to a threshold (col. 10, lines 49-63). Clearly, the client of Goldszmidt is managing the failure situation. Goldszmidt states that the server could send a distress or switch signal, but ultimately it is the client that detects failure and initiates recovery.

In the third cited passage (FIGs. 1a, 5; Abstract; col. 5, lines 22-64), Goldszmidt states that the control server redirects incoming client requests to streaming servers and monitors the workload of the streaming servers. Goldszmidt states that each instance of the streaming process begins with a client's connecting to the control server which then assigns the client to one of the streaming servers based on round robin or load balancing techniques.

In the fourth cited passage (FIG. 1b; col. 7, line 11 – col. 12 (8), line 33), Goldszmidt states that a data structure that maps the clients to the servers is maintained on the client or the control server. Goldszmidt further states that when the client detects a failure, the client passes the identification of the failed server and the alternate server to the control server, the client requests an alternate server, the control server switches the client to the alternate server at the client's request and provides the client with the identification of the alternate server so the client can initiate another switch if necessary.

Applicant, on the contrary, claims monitoring the operation of a plurality of gateways that are responsible for managing network elements, and when one of the gateways fails, recovering management of the network elements by a central management system (amended claim 1). Applicants' system therefore includes a plurality of gateways that manage network elements, and a central management system that recovers management of the network elements when a gateway fails.

Applicant respectfully points out that the analogy stated by the Office Action wherein Goldszmidt's server is equated to Applicant's gateway and Goldszmidt's client is equated to Applicant's network element fails. Applicant's network element, in the system of Applicant, is reconfigured by the central management system when the gateway that manages it fails. Whereas Goldszmidt's client detects failure and initiates recovery, Applicant claims a management recovery system (401 and 202, Applicant's FIG. 4) to recover management of the network element (e.g. 214, Applicant's FIG. 4) for which the failed gateway (e.g. 210, Applicant's FIG. 4) has management responsibility. Further, failure detection and recovery is not initiated by Applicant's network element, whereas Goldszmidt clearly states that the clients themselves detect failure and initiate recovery (col. 10, line 7). Therefore Goldszmidt

cannot anticipate Applicant's claims 1 and 44 because Goldszmidt does not disclose all of Applicant's claimed steps and elements.

On page 6, with respect to claim 27, the Office Action states that Goldszmidt discloses a system comprising a plurality of network elements (clients 1.8, FIG. 1a could be multiple clients, (col. 9, line 47 – to col. 10, line 48) and plurality of distributed gateways (servers 1.1, 1.2, 1.3 of FIG. 1a could be gateways, col. 4, lines 27-58) each communicatively coupled to one or more of said plurality of network elements, wherein each of said plurality of distributed gateways is responsible for managing one or more of said plurality of network elements (FIGs. 1a, 5, col.. 5, lines 22-64), gateway monitoring system (1.1 FIG. 1a), wherein said gateway monitoring system is operable to detect failure of at least one of said distributed gateways and management recovery system communicatively coupled to said plurality of distributed gateways (detecting a failure in the stream or stream server 1.2 FIG. 1b), wherein said management recovery system is operable to autonomously recover management of said one or more network elements for which a detected failed gateway has management responsibility (detecting failure of a streaming server and switching the client agent to an alternate streaming server, FIG. 1b, col. 7, line 11, to col. 12, line 33, col. 9, lines 7-47).

The shortcomings of all the cited passages but one with respect to Applicant's invention have been previously set forth and will not be repeated here.

In the remaining cited passage (col. 9, lines 7-47), Goldszmidt states that when a connection from a streaming server to a client fails, the client sends a message to the control server, requests to be switched to an alternate server, is redirected by the control server, and receives streaming data from the alternate server. Goldszmidt states that the invention could be implemented in software and could be embodied on computer-readable media.

Applicant respectfully points out that the analogy stated by the Office Action wherein Goldszmidt's server is equated to Applicant's gateway and Goldszmidt's client is equated to Applicant's network element fails for reasons stated previously. Further, the Office Action equates Applicant's gateway monitoring system to Goldszmidt's control server. This analogy also fails, and Goldszmidt teaches away from Applicant's claimed invention, because Applicant claims a gateway monitoring system that detects the failure of a gateway, whereas Goldszmidt states that the client detects failure (col. 10, line 7 among other places). Whereas Goldszmidt's client detects failure and initiates recovery, Applicant claims a

gateway monitoring system (401) that detects failure of a gateway (e.g. 210) and a management recovery system (202) to recover management of the network element (e.g. 214) for which the failed gateway has management responsibility.

As shown in Applicant's FIG. 4, Applicant's recovery management system (202) does not route gateway (210) requests to network elements (214). As shown in Goldszmidt's FIG. 1a, Goldszmidt's control server (1.1) does route client (1.6) requests to streaming servers (1.2). Further, failure detection and recovery is not initiated by Applicant's network element. Therefore, Goldszmidt does not anticipate Applicant's claim 27 because Goldszmidt does not include each and every element of Applicant's claimed invention.

Since Goldszmidt does not anticipate and/or make obvious each and every element of Applicant's independent claims 27 and 44, and each and every step of Applicant's independent claim 1, Applicant's claims 1, 27, and 44 (as well as dependent claims 1-26, 28-43, and 45-57 that depend, either directly or indirectly, therefrom and that further define the invention) are not anticipated by Goldszmidt, and a rejection under 35 U.S.C. § 102(e) is inappropriate. Applicant asserts that independent claims 1, 27, and 44 (as well as dependent claims 1-26, 28-43, and 45-57 that depend, either directly or indirectly, therefrom and that further define the invention) are now in condition for allowance. Applicant respectfully requests the withdrawal of rejections under 35 U.S.C. § 102(e) (and 35 U.S.C. 103 (a)) with regards to dependent claims 20 and 40) for the reasons set forth above. Furthermore, a 35 U.S.C. § 103 rejection of these claims would be inappropriate as well. Applicant's claimed invention is not an obvious extension of the use of Goldszmidt to meet Applicant's patentable limitations.

Dependent claims 2-19, 21-26, 28-39, 41-43, and 45-47

To further Applicants' position of the patentability of claims 2-19, 21-26, 28-39, 41-43, and 45-57, Applicants note the following.

On pages 3 and 8, with respect to dependent claims 2, 3, and 47, which depend from claims 1 and 44, Examiner states that Goldszmidt discloses translating a communication protocol utilized by said one or more network elements, and that said plurality of distributed gateways are communicatively coupled to a processor-based management system (using the changed start up protocol of the TCP-router node so that recovery of the primary router will not cause a failure in a backup that has taken over for it, FIG. 1a, col. 6, lines 8-60).

In the cited passage, Goldszmidt states that a fault tolerant recoverable TCP/IP connection route can be used to provide primary and backup client request handlers, and that an affinity-based router can set up the system so that clients have affinity to one or more nodes that are preferred to handle that client's requests. Goldszmidt also states that when the primary fails, the connection state at the time of failure can be reconstructed by the backup router so that client connections won't be lost, and that the process by which the primary is switched to the backup (the start up protocol for a TCP-router node) is changed to accommodate a configuration having primary and backup nodes. The "start up protocol" is therefore a list of commands necessary to activate either the primary or backup TCP-router node, but it is not Applicant's claimed communication protocol.

Further, nowhere does Goldszmidt disclose Applicant's claimed translating a communication protocol utilized by one or more network elements. Although TCP/IP is a communication protocol, Goldszmidt states that a TCP-router node is used, which means that the TCP/IP protocol is expected to be used as the communication protocol in that node. Nowhere does Goldszmidt disclose that a communication protocol translation such as, for example, from SNMP to CMIP, is accomplished.

Still further, nowhere does Goldszmidt disclose Applicant's claimed processor-based management system communicatively coupled with a plurality of distributed gateways. The Office Action has equated control server 1.1 and servers 1.2 and 1.3 to Applicant's gateways. According to FIG. 1a, control server 1.1 is communicatively coupled with client agent 1.8, which the Office Action has equated with Applicant's network elements. Applicant's claimed network elements (214) are clearly distinguished from Applicant's claimed processor-based management system (202) (see Applicant's FIG. 2).

Thus, Applicant's claimed translating a communication protocol and processor-based management system are not found in Goldszmidt, and Goldszmidt therefore cannot anticipate Applicant's claims 2, 3, and 47.

On pages 3-4 and 7-8, with respect to dependent claims 4-12, 28-35, 41, and 48-53, which depend from independent claims 1 (4-12), 27 (28-35 and 41), and 44 (48-53) the Office Action states that Goldszmidt discloses (FIGs. 1a and 1b; col. 7 line 11 – col. 8, line 34; col. 9, lines 6-47)

(1) said management system controlling said recovering step, said one or more gateway monitoring systems performing said detecting step and polling said plurality of

distributed gateways (detecting failure in streaming servers acting as gateways to clients) (claims 4-6 and 48);

(2) said one or more gateway monitoring systems controlling said recovering step, determining management activities for which a detected failed gateway is responsible for performing and determining one or more available gateways from said plurality of distributed gateways, which are available for assuming at least a portion of said management activities of said detected failed gateway (detecting failure in streaming servers acting as gateways to clients) (claims 7-9, 32, 33, 50, and 51);

(3) that one or more available gateways are a subset (clusters of FIG. 1a) of said plurality of distributed gateways, available gateways are gateways local to said detected failed gateway (detecting a failed server) and grouping two or more of said plurality of distributed gateways (claims 10-12, 34, 35, 49, 52, and 53);

(4) said management recovery system is operable to assign management responsibility of said one or more network elements for which said detected failed gateway had management responsibility to at least one other of said plurality of distributed gateways (detecting failure of a streaming server and switching the client agent to an alternate streaming server) (claim 28);

(5) translation of a communication protocol utilized by said one or more network elements, said gateway monitoring system and said management recovery system are integrated on a common platform and operable to poll said plurality of distributed gateways (detecting failure in streaming servers acting as gateway to clients) (claims 29-31); and

(6) said management recovery system to present a user interface for alerting a user of said detected failed gateway (claim 41).

The shortcomings of the first cited passage (col. 7, line 11 – col. 8, line 34) have been set forth previously and will not be repeated here except to reiterate that the client of Goldszmidt detects if there is a failure of communication between itself and the server. The shortcomings of the second cited passage (col. 9, lines 7-47) have been set forth previously and will not be repeated here except to reiterate that the process by which failure recovery occurs is initiated by the client.

On page 3, with respect to claim 4, the shortcomings of Goldszmidt with respect to Applicant's claimed processor-based management system have been set forth previously and will not be repeated here. With respect to claim 5, the shortcomings of Goldszmidt with

respect to Applicant's claimed gateway monitoring system have been discussed previously and will not be repeated here. With respect to claims 6 and 48, Applicants cannot locate in Goldszmidt any reference to polling to determine the health of Applicant's claimed plurality of distributed gateways, which the Office Action has equated to Goldszmidt's servers. Thus, even if, in functionality and connectivity, Goldszmidt's servers anticipated Applicant's claimed plurality of distributed gateways, which they do not, nowhere does Goldszmidt disclose polling of the servers. Thus, Goldszmidt does not anticipate claims 4-6 and 48 for reasons previously stated and because Goldszmidt does not disclose or suggest Applicant's claimed gateway monitoring system that polls the plurality of gateways.

On pages 3-4, with respect to claim 7, Applicant claims a gateway monitoring system that controls the recovering step, whereas Goldszmidt states that the client controls recovery. Control server 1.1 follows the direction of the client. Thus Goldszmidt does not anticipate claim 7.

On pages 3, 4, 7, and 8, with respect to claims 8, 32, and 50, Applicant claims a management recovery system (claim 32) that determines management activities for which a detected failed gateway is responsible for performing, whereas Goldszmidt states that the control server switches to an alternate streaming server at the client's communicated request. Thus, Goldszmidt does not anticipate claims 8, 32, and 50 because the client of Goldszmidt, which the Office Action has analogized to Applicant's claimed network element, controls switching to an alternate streaming server, but Applicant claims a management recovery system that is different from Applicant's claimed network element that determines management activities for which the failed gateway is responsible for performing.

On pages 3, 4, 7, and 8, with respect to claims 9, 33, and 51, Applicant claims a management recovery system that determines an available gateway after a detected gateway failure. Goldszmidt states that the client (analogized in the Office Action to Applicant's network element), in the preferred embodiment, maintains a data structure that maps the clients to the servers, and that the client passes the identification of the failed server and the alternate server to the control server. In Goldszmidt, the client determines the alternate streaming server, and thus, Goldszmidt cannot anticipate Applicant's claims 9, 33, and 51.

On pages 4, 7, and 8, with respect to claims 10, 34, and 52, Applicant claims that the available gateways are a subset of the plurality of distributed gateways. Applicant has defined distributed gateways (page 13, line 27, Applicant's specification) to include the

situation in which gateway processes are implemented in a distributed fashion. Goldszmidt states that the streaming servers are used to deliver real-time multimedia streams to the client agents (see, e.g. col. 3, lines 36-38). Nowhere does Goldszmidt disclose or suggest that any of the client, control server, or streaming servers are acting as distributed gateways as Applicant has claimed, and thus Goldszmidt cannot anticipate Applicant's claims 10, 34, and 52.

On page 7, with respect to claim 28, Applicant claims a management recovery system that assigns management responsibility of a network element from a failed gateway to another of the plurality of distributed gateways. Goldszmidt states that the client automatically detects load imbalances and/or failures (complete or partial) and dynamically switches to an alternate server in order to continue receiving the real-time multimedia stream with minimal disruption (col. 3, lines 7-11). The Office Action states that the client of Goldszmidt is analogous to Applicant's claimed network element. Clearly Applicant's claimed network element does not assign management responsibility of a network element from a failed gateway to one of a plurality of distributed gateways, and therefore Goldszmidt cannot anticipate Applicant's claim 28.

On page 7, with respect to claim 29, Goldszmidt cannot anticipate Applicant's claim 29 because nowhere does Goldszmidt disclose translation of a communication protocol utilized by one or more network elements. Translation of a communication protocol involves receiving information in a particular protocol, for example, SNMP, interpreting the protocol, and translating the protocol from the incoming protocol to another protocol, for example, CMIP.

On page 7, with respect to claim 30, Applicant claims a gateway management system and management recovery system that are integrated on a common platform. The Office Action analogizes both the gateway management system and the management recovery system to Goldszmidt's control server, but Goldszmidt states that the client initiates functions such as the gateway management system and management recovery system might perform, and the control server supports the client to enable these functions. Nowhere does Goldszmidt disclose or suggest that the client and the control server could be integrated on a common platform, and FIG. 3d teaches away from such a configuration. Applicant therefore asserts that Goldszmidt cannot anticipate Applicant's claim 30.

On page 7, with respect to claim 31, Goldszmidt cannot anticipate Applicant's claim 31 because nowhere does Goldszmidt disclose a gateway monitoring system that is operable to poll the plurality of distributed gateways. Polling involves sending a request from the gateway monitoring system to the gateways and determining if a response is timely or ever received. Goldszmidt states that the client determines if the stream has failed, but nowhere does Goldszmidt disclose that the client or control server polls the streaming servers. Further, neither the client nor the control server is analogous to Applicant's gateway monitoring system, as shown previously. Therefore, Goldszmidt cannot anticipate Applicant's claim 31.

On page 4, with respect to claims 13 and 14, the Office Action states that Goldszmidt discloses determining gateways that are included in a common grouping with said detected failed gateway and said grouping is predetermined based at least in part on a criteria selected from the group consisting of gateway communication protocol, gateway location, and any user defined criteria (FIGs. 1a and 1b; col. 7, line 11 – col. 8, line 34; col. 9, line 48 – col. 10, line 63).

The shortcomings of the first cited passage (col. 7, line 11 – col. 8, line 34) have been set forth previously and will not be repeated here. In the second cited passage (col. 9, line 48 – col. 10, line 63) Goldszmidt states that the streaming servers are divided into at least two non-overlapping sets where each set includes at least one streaming server, that the control server identifies a set of primary and alternate streaming servers that the client can connect to, and that the control server communicates the identifiers of the primary and alternate streaming servers to the client. Goldszmidt further states that the client is receiving a continuous multimedia stream, detects a failure (through bit or frame/sample rate, delivery rate, packets arriving out of order, numbering mechanisms available in possible protocols, a distress signal sent by the streaming server or the control server, or a user-initiated action), communicates a request to the control server to switch to the alternate server, and the client receives the multimedia streams from the alternate streaming server.

The shortcomings of the analogies of the Office Action have been set forth previously and will not be repeated here. With respect to claim 13, however, even if the analogies of the Office Action were correct, which they are not, Applicant asserts that Goldszmidt teaches away from Applicant's claimed determining an available gateway from gateways that are included in a common grouping with the detected failed gateway because Goldszmidt states

that the primary and alternate streaming servers are divided into at least two non-overlapping sets. Thus, the alternate streaming server could not be included in a common grouping with the primary (failed) streaming server, and Goldszmidt cannot anticipate Applicant's claim 13. With respect to claim 14, the cited passage gives no criteria for grouping the streaming servers together, and thus, Goldszmidt cannot anticipate claim 14.

On pages 4-8, with respect to claims 15-19, 21-26, 37, 38, 42, 43, 45, 46, 55-57, the Office Action states (FIG. 1b; col. 7, line 11 -- col. 12, line 33)

(1) That Goldszmidt discloses distributing said management activities of said detected failed gateway to at least one of said one or more available gateways, determining operational load of said available gateways (utilization rate) and performing load balancing in distributing said management activities to said at least one of said one or more available gateways and load balancing is performed autonomously by a processor-based system (claims 15-17, 21-23, 37, 38, 46, and 56, pages 4, 7, and 8) (detecting failure of a streaming server and switching the client agent to an alternate streaming server);

(2) Determining the operational load for each of said management activities, allocating said management activities to one or more of said available gateways in a manner that approximately balances each of their operational loads and said operational load of said available gateways is determined dynamically, and allocation of said management activities is determined based at least in part on said determined operational load of said available gateways (claims 18, 19, 39, 55, and 57, pages 5, 7, and 8) (detecting failure of a streaming server and switching the client agent to an alternate streaming server);

(3) Translating a plurality of different communication protocols, user predefining at least one of said plurality of distributed gateways to be used in recovering management of one or more network elements for which a particular one of said plurality of distributed gateways has management responsibility in the event of a failure of said particular one of said plurality of distributed gateways (claims 24, 25, 42, and 45, pages 5 and 8) (detecting failure of a streaming server and switching the client agent to an alternate streaming server); and

(4) That user predefining criteria to be used in recovering management of one or more network elements in the event of a failure of one or said plurality of distributed gateways (claims 26 and 43, pages 6 and 8) (detecting failure of a streaming server and switching the client agent to an alternate streaming server).

The shortcomings of the cited passage (col. 7, line 11 -- col. 12, line 33) have been set forth previously and will not be repeated here.

On pages 4, 5, 7, and 8, with respect to claims 15, 16, 21, 23, 37, 38, and 56, Applicant asserts that there is no element in Goldszmidt that is analogous to Applicant's claimed management recovery system. Goldszmidt's control server simply reacts when directed by the client, which is analogized in the Office Action, with Applicant's claimed network elements. Thus, Goldszmidt cannot anticipate claims 15, 16, 21, 23, 37, 38, and 56.

On page 5, with respect to claim 24, Applicant reiterates that nowhere does Goldszmidt disclose protocol translation, and therefore, Goldszmidt cannot anticipate Applicant's claim 24.

On pages 7 and 8, with respect to claims 36 and 54, the Office Action states that Goldszmidt discloses (col. 6, lines 32-60; col. 7, lines 22-52):

(1) Translating a common communication protocol as said detected failed gateway (claim 36); and

(2) Translation of a communication protocol utilized by said one or more network elements (claim 54).

In the first cited passage (col. 6, lines 32-60), Goldszmidt states that that any of the server nodes in a multi-node affinity-based system can handle a client request, that clients have affinity to one or more of the server nodes, that a node may be designated as a TCP router, that the TCP router selects one of the nodes in the multi-node server to process the client request and routes the request to the selected node.

In the second cited passage (col. 7, lines 22-52), Goldszmidt states that the client agent is assigned a primary and secondary streaming server, that the identifications of these servers are stored in a data structure at the client, that when the client detects a failure the client passes the identification of the streaming server(s) to the control server, that the control server switches the client to the secondary server, that the secondary streaming server now becomes the primary streaming server, and the primary streaming server becomes the secondary streaming server. Goldszmidt states that the primary and secondary streaming servers could be sets of servers that correspond with any server using odd- or even-numbered ports. Goldszmidt states that the client may switch back and forth between the two sets of servers. Goldszmidt states that the multimedia stream is broadcast over the Internet and the client is a conventional computer workstation equipped with a standard browser.

Applicant asserts that, in neither cited passage, nor elsewhere, does Goldszmidt disclose Applicant's claimed determining an available gateway that can translate a common communication protocol as the failed gateway. Goldszmidt states that a TCP router selects a node but nowhere does Goldszmidt disclose or suggest that the TCP router selects a node based on its ability to translate the same communications protocol as the failed gateway. As previously stated, communications protocol translation requires steps that are not disclosed or suggested by Goldszmidt, and therefore Goldszmidt cannot anticipate claims 36 and 54.

Applicant asserts that claims 11, 12, 17-19, 22, 25, 26, 35, 39, 41-43, 45, 46, 49, 53, 55, and 57 are patentable at least by virtue of the fact that they depend upon patentable independent claims 1 (17-19, 22, 25, and 26), 27 (39 and 41-43), and 44 (45, 46, 55, and 57).

Since Goldszmidt does not anticipate each and every element of Applicant's dependent claims 2-19, 21-26, 28-39, 41-43, and 45-57, either expressly or inherently, a rejection under 35 U.S.C. § 102(e) is inappropriate. Applicant asserts that dependent claims 2-19, 21-26, 28-39, 41-43, and 45-57 are now in condition for allowance. Applicant respectfully requests the withdrawal of rejections under 35 U.S.C. § 102(e) with regards to dependent claims 2-19, 21-26, 28-39, 41-43, and 45-57 for the reasons set forth above. Furthermore, a 35 U.S.C. § 103 rejection of these claims would be inappropriate as well. Applicant's claimed invention is not an obvious extension of the use of Goldszmidt to meet Applicant's patentable limitations.

III. REJECTIONS UNDER 35 USC § 103

On pages 8-9, paragraphs 4-5, the Office Action rejects dependent claims 20 and 40, which depend on claims 1 and 27, under 35 U.S.C. § 103(a) as being unpatentable over Goldszmidt in view of Wolf.

Applicant respectfully points out that the cited reference, Wolf, was published on April 16, 2002, almost a year after the filing date of the present application, May 29, 2001. Applicant respectfully reserves the right to file a petition under 37 C.F.R. § 1.131 to swear behind Wolf.

On page 9 of the Office Action, in paragraph 5, with respect to dependent claims 20 and 40,

(1) The Office Action states that Goldszmidt's teachings still apply as set out above.

As a rebuttal to Examiner's position, Applicant respectfully points out that Goldszmidt fails as a reference under 35 U.S.C. § 103 for the same reasons recited above with respect to the 35 U.S.C. § 102 rejection. Therefore, Applicant asserts that Goldszmidt does not anticipate Applicant's invention for the reasons stated above.

(2) The Office Action states that Goldszmidt does not specifically disclose load balancing is performed according to a greedy algorithm.

(3) The Office Action states that Wolf discloses load balancing is performed according to a greedy algorithm (using a logical assignment of overlapping clusters is updated periodically via a greedy algorithm) (col. 9, lines 25-62, col. 17, lines 35-52).

Applicant respectfully points out that Wolf discloses an example of a load balancing method (col. 9, lines 25-62) and a method for balancing load across a plurality of web servers of a web server farm hosting multiple web sites designed to handle multiple customers including the step of logically assigning each web site to one or more servers according to various predetermined criteria. The set of all servers to which a particular web site is assigned is called its cluster (col. 1, lines 64-66), and clusters can overlap so that more than one web site can be assigned to a server. Wolf discloses that the logical assignment of overlapping clusters is updated periodically via a greedy algorithm that includes steps for reoptimizing the topology of the underlying assignment graph.

Applicant, on the contrary, claims (claim 20) a method for recovering management of one or more network elements including the steps of determining management activities for which a detected failed gateway is responsible for performing, determining one or more available gateways from the distributed gateways that is available for assuming at least a portion of the management activities of the detected failed gateway, distributing the management activities of the detected failed gateway to at least one of the available gateways, determining operational load of the available gateways, and performing load balancing according to a greedy algorithm in distributing the management activities to the available gateways. Applicant further claims (claim 40) a system including network elements, distributed gateways coupled to the network elements, a gateway monitoring system coupled to the gateways, and a management recovery system coupled to the gateways, where the management recovery system determines management activities that a detected failed gateway is responsible for performing, where the management recovery system determines available gateways that can assume at least a portion of the management

activities of the detected failed gateway, where the management recovery system distributes the management activities of the detected failed gateway to at least one of the available gateways, where the management recovery system determines operational load of the available gateways and performs load balancing in distributing the management activities to at least one of the available gateways, and where the management recovery system includes software code implementing a greedy algorithm for controlling load balancing.

As a rebuttal to Examiner's position, Applicant respectfully points out that whereas Goldszmidt states that clients request multimedia from streaming servers and manage failure of those servers, and Wolf discloses a method for assigning web sites to servers, together nor separately do they disclose all the elements of Applicant's claimed method and system for detecting failed gateways and load balancing among the remaining gateways that includes the use of a greedy algorithm. Neither Goldszmidt nor Wolf nor their combination discloses or suggests a greedy algorithm along with the other features of Applicant's claims 20 and 40.

(4) The Office Action states that it would have been obvious to implement Wolf's algorithm into the computer system of Goldszmidt to balance the load between servers because it would have optimized the topology of the underlying assignment graph in order to react to changing customer activity rates at the various web sites and minimized a maximum diameter of said underlying assignment graph and therefore balanced the load between servers in a communications network.

In order for a rejection under 35 U.S.C. §103 to be sustained, the Examiner must establish a *prima facie* case of obviousness. As pointed out in MPEP § 2142, one of the three criteria to establish a *prima facie* case of obviousness is that the prior art reference(s) must teach or suggest all the claim limitations. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Further, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly

in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Applicant asserts that there is no suggestion or motivation in either Goldszmidt or Wolf to perform the claimed subject matter of claims 20 and 40. Since Goldszmidt and Wolf, separately or in combination, do not teach or suggest each and every element of Applicant's dependent claims 20 and 40, which depend upon claims 1 and 27, either expressly or inherently, Applicant's dependent claim 20 and 40 are not made obvious by Goldszmidt and Wolf, and a rejection under 35 U.S.C. § 103(a) is inappropriate. Applicant asserts that dependent claims 20 and 40 are now in condition for allowance. Applicant respectfully requests the withdrawal of the rejection under 35 U.S.C. § 103(a) with regards to dependent claims 20 and 40 for the reasons set forth above.

IV. CONCLUSION

Claims 1, 27, and 44 are believed to be in condition for allowance for the reasons provided herein. All dependent claims, 2-26, 28-43, and 45-57, are also allowable for the reasons presented above, and further because they depend upon allowable independent claims, and are therefore also in condition for allowance.

Applicant respectfully points out that the cited reference, Goldszmidt, was published on February 21, 2001, within a year of the filing date of the present application, May 29, 2001. Applicant respectfully reserves the right to file a petition under 37 C.F.R. § 1.131 to swear behind Goldszmidt.

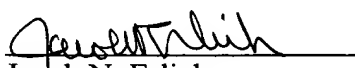
Applicant further respectfully points out that Examiner's cited reference, Wolf, was published on April 16, 2002, almost a year after the filing date of the present application, May 29, 2001. Applicant is investigating the possibility of swearing behind the cited reference and respectfully reserves the right to file a petition under 37 C.F.R. § 1.131.

Although no additional fees are anticipated, the Commissioner for Patents is authorized to charge additional fees or credit overpayment to Deposit Account No. 50-1078.

The following information is presented in the event that a call may be deemed desirable by the Examiner: JACOB N. ERLICH (617) 854-4000.

Respectfully submitted on behalf of Applicant,

Date: September 2, 2005

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